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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,824	07/23/2003	Randall Lewis Silagi	GIC-666	2532

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EXAMINER	
KIM, PAUL	

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,824	SILAGI ET AL.	
	Examiner	Art Unit	
	Paul Kim	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,13-24 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11, 13-24 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is responsive to the following communication: Amendment filed on 23 June 2006.

2. Claims 1-11, 13-24 and 26-28 are pending and present for examination.

Response to Amendment

3. Claims 1 and 14 have been amended.

4. Claims 12 and 25 have been cancelled.

5. Claims 27 and 28 have been added.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claim 1-8 and 14-21** are rejected under 35 U.S.C. 102(b) as being anticipated by Cuccia (U.S. Patent No. 6,157,673), filed on 26 December 1996, and issued on 5 December 2000.

8. **As per independent claims 1 and 14**, CUCCIA teaches:

> A method for collecting multimedia program information from a plurality of multimedia transport streams, comprising:
>
> receiving a plurality of transport streams, each of which contains program information regarding multimedia programs carried in the transport stream {See CUCCIA, C1:L11-14, wherein this reads over "extraction of program specific information (PSI) from the multiple transport streams"},
>
> receiving requests for collecting program information, said requests identifying program information to be collected from one or more of the transport streams {See CUCCIA, C3:L21-23, wherein this reads over "the action of the decoder requires the extraction of program specific information (PSI) from the transport stream newly applied to the transport decoder"},

obtaining program information from the plurality of transport streams as they are received {See CUCCIA, C2:L25-39, wherein this reads over "decoding data corresponding to a program from a first transport stream"}; and

matching a first received program information with a first list of requested program information {See CUCCIA, C2:L25-39, wherein this reads over "extracting program specific information from a second transport stream, indicating a correspondence between packet ID numbers and data for programs in said stream"}; and

matching a second received program information with a second list of requested program information {See CUCCIA, C2:L25-39, wherein this reads over "extracting program specific information from a third transport stream during the decoding of the first transport stream"A} ~~processing the obtained program information in accordance with the requested program information to locate a match between the requested and received program information.~~

9. **As per dependent claims 2 and 15**, CUCCIA teaches:

The method of claim 1 wherein at least once of the transport streams is an MPEG transport stream {See CUCCIA, C1:L7-10, wherein this reads over "multiple transport streams, such as MPEG-2 [] encoded data streams"}.

10. **As per dependent claims 3 and 16**, CUCCIA teaches:

The method of claim 1 wherein the requested program information is comprised of multiple fields {See CUCCIA, Figure 3}.

11. **As per dependent claims 4 and 17**, CUCCIA teaches:

The method of claim 3 wherein said fields include at least one Program Identification (PID) Code {See CUCCIA, Figure 3; and C3:L32-33, wherein this reads over "[w]ithin each header PH is a 13 bit packet identification number or PID"}.

12. **As per dependent claims 5 and 18**, CUCCIA teaches:

The method of claim 1 wherein said processing of the program information is done asynchronously with respect to said receiving step {See CUCCIA, C2:L59-63, wherein this reads over "transport streams may be supplied from different source types such as modems, asynchronous transfer mode (ATM) networks"}.

13. **As per dependent claims 6 and 19**, CUCCIA teaches:

The method of claim 1 further comprising the step of notifying an application requesting the program information once a match is located {See CUCCIA, C4:L59-64, wherein this reads over "the extracted PSI is conveyed via microcontroller to the mapping function of the host processor of decoding system where it is used to store and maintain a global map of channel number s to transport stream and associated PSI"}.

14. **As per dependent claims 7 and 20**, CUCCIA teaches:

The method of claim 6 wherein the application requesting the program information periodically queries the status of the request {See CUCCIA, C3:L10-12, wherein this reads over "[m]aping function is accessed in response to a channel change request issued from a user interface function"}.

15. **As per dependent claims 8 and 21**, CUCCIA teaches:

The method of claim 1 wherein the program information carried in the transport streams is received out of the sequence specified in the request {See CUCCIA, C1:L21-23, wherein this reads over "[a]ny one MPEG-2 transport stream may contain multiple programs for presentation to the user"}.

16. **As per dependent claims 27 and 28**, CUCCIA teaches:

The method of claim 1 wherein the first received program information includes a Program Identification (PID) Code {See CUCCIA, Figure 3; and C3:L32-33, wherein this reads over "[w]ithin each header PH is a 13 bit packet identification number or PID"} and the second received program information includes one of Table ID, Table ID extension, Version Number of Section Number {See CUCCIA, C3:L43-60, wherein this reads over "a packet which contains the Program Association Table (PAT). This table essentially relates program number to PIDs of packets containing a Program Map Table (PMT) for that program"}.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. **Claims 9 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of Metz et al (U.S. Patent No. 5,666,293), filed on 3 July 1995, and issued on 9 September 1997.

CUCCIA teaches the limitations of claims 1-8 and 14-21 for the reasons stated above.

CUCCIA differs from the claimed invention in that CUCCIA fails to disclose the division of lists for search purposes (claims 9 and 22).

19. **As per dependent claims 9 and 22,** CUCCIA, in combination with METZ, discloses:

> The method of claim 1 wherein said processing includes dividing the requested information into multiple lists and searching each list as program information is received from the transport streams {See METZ, C12:L40-45, wherein this reads over "a number of packets used to find and decode desired sequences of packets in the stream, for example a program association map (PID), one or more program map tables and a network table"}.

The combination of inventions disclosed in by CUCCIA and METZ would disclose an invention wherein multiple lists are created for search of program information as the program information is received from the transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification to improve search efficiency.

20. **Claims 10-11 and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of METZ, and in further view of Look et al (U.S. Patent No. 6,747,906, hereinafter referred to as LOOK), filed on March 30, 2000, and issued on June 29, 2004.

CUCCIA teaches the limitations of claims 1-8 and 14-21 for the reasons stated above.

CUCCIA differs from the claimed invention in that CUCCIA fails to disclose a linear search algorithm which is used to conduct the search (claims 10 and 23).

CUCCIA differs from the claimed invention in that CUCCIA fails to disclose a binary search algorithm which is used to conduct the search (claims 11 and 24).

21. **As per dependent claims 10 and 23**, CUCCIA, in combination with METZ and LOOK, discloses a linear search algorithm which is used to conduct the search {See LOOK, col. 6, lines 1-8, wherein this reads over "linearly parse the stream from the beginning to find the desired location"}.

The combination of inventions disclosed in by CUCCIA, METZ and LOOK would disclose an invention wherein a linear search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify the above invention suggested by CUCCIA and METZ by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a linear search algorithm is a well-known search method within the art.

22. **As per dependent claims 11 and 24**, CUCCIA, in combination with METZ and LOOK, discloses a binary search algorithm which is used to conduct the search {See LOOK, col. 5, line 66 – col. 6, line 6, wherein this reads over "[a] binary search can be performed on a stored filed to index into a stream. Each stream is stored as a sequence of fixed-size segments enabling fast binary searches"}.

The combination of inventions disclosed in by CUCCIA, METZ and LOOK would disclose an invention wherein a binary search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CUCCIA and METZ by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a binary search algorithm, a well-known search method within the art, improves the search efficiency.

23. **Claims 13 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over CUCCIA, in view of Official Notice.

24. **As per dependent claims 13 and 26**, it would have been obvious to one of ordinary skill in the art to have multiple receivers simultaneously receiving requests from different applications.

Response to Arguments

25. Applicant's arguments with respect to claims 1-11, 13-24 and 26-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chase can be reached on (571) 272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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